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**Methods and systems for managing insurance claims**

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## ABSTRACT

The invention relates to a method of and system for managing an insurance claim, the method including the steps of obtaining readily available information on a claim, including items of property relevant to said claim, such information forming a claim datafile; requesting, via data communication means, information to establish a replacement value for each of the items of property relating to the claim, the information or data being part of a database kept current with replacement and market values of claimable items; selecting a method of settlement of the claim; and calculating the replacement values for each of the items of property to determine a settlement value. Further, a computer program for managing an insurance claim is disclosed, the program including an algorithm for deriving the settlement value of the claim.



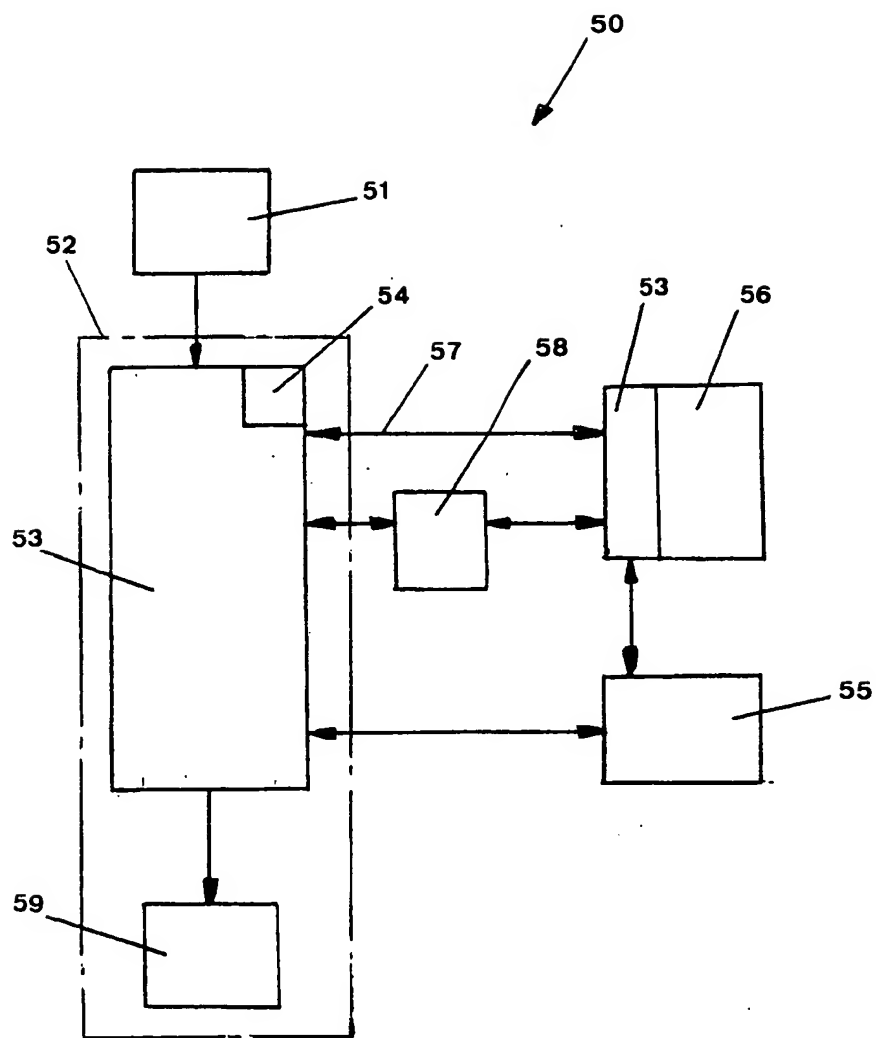


Figure 2

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**COMPLETE SPECIFICATION**

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Complete Specification for the invention entitled:

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**METHODS AND SYSTEMS FOR MANAGING INSURANCE CLAIMS**

The following statement is a full description of this invention, including the best method of performing

50 it known to us:

## METHODS AND SYSTEMS FOR MANAGING INSURANCE CLAIMS

### TECHNICAL FIELD

- 5 This invention relates to methods and systems for managing insurance claims.

### BACKGROUND ART

10 The processing steps of settling an insurance claim has to date generally been a largely manual and labour intensive task. Although various computer software programs have been implemented to assist the task of processing claims, they have generally been ad hoc developments and have only automated a few steps in the process from first handling a claim application to full settlement of the claim.

15 One problem has been the multi-handling of a claim by many personnel in the chain of tasks and steps toward settlement of the claim. For example, once a claim is made, the items being claimed must be assessed and instructions issued for an assessor to determine the value of the item and to report back to the person handling the claim. Alternatively, claimants have been required to obtain quotes for the value of an item being claimed and to provide those to the claims handler.

20 A further step in the standard process of settling an insurance claim has been the use and reliance on a paper file. This requires a claims handler to properly write file notes and to record transactions and agreements. Unfortunately this reliance can sometimes be misplaced and claims handlers can either fail to record details making it difficult for other claims handlers to continue work on the file to complete a subsequent step if the previous person has retained information in their memory rather than recorded details. This problem is further exacerbated by claims handlers who are not present at work or have left the employment of the insurance company handling the claim.

25 30 The reliance on a paper file also requires anyone working on a claim to have the physical file present. If the file is not present further delays are evident. If the file is misplaced or lost, and the paper file is the only record of the claim, then this creates further delays and problems in the settlement of a claim.

Standardisation of processing steps can also be difficult to achieve between various offices in an organisation where various business units do not know what the other units are doing.

It is seen that the standard claim processing steps for settling an insurance claim can be inefficient and time consuming. This also lead to delays in the settlement process that can be frustrating for claimants and insurance companies and associated organisations.

It is an object of the invention to provide a method of and system for handling or managing claims that overcomes at least some of the abovementioned problems, or at least to provide the public with a useful choice.

### SUMMARY OF THE INVENTION

According to a broad aspect of the invention there is provided a method of managing an insurance claim, the method including the steps of:

- a.) obtaining readily available information on a claim, including items of property relevant to said claim, such information forming a claim datafile;
- b.) requesting, via data communication means, information to establish a replacement value for each of the items of property relating to the claim, the information or data being part of a database kept current with replacement values of claimable items;
- c.) selecting a method of settlement of the claim; and
- d.) calculating the replacement values for each of the items of property to determine a settlement value.

When in step c.) the method of settlement of the claim is by cash settlement, desirably in step d. the settlement value is determined by applying a formula in the form of:

$$\text{settlement value} = \text{replacement value} - \frac{(\text{age of item} \times \text{replacement})}{\text{life expectancy value of item}}$$

When in step c. the method of settlement of the claim is by market value settlement, desirably in step d.) the settlement value or amount of each item is determined by seeking and obtaining an open market value from a valuer or third party.

When the method of settlement of the claim is by supply settlement, desirably in step d.) the settlement value is determined by selecting a retailer or supplier of the claimed item of property and placing an order for the supply of the item.

5 When in step c.) the method of settlement of the claim is by voucher settlement, desirably in step d.) the settlement value is determined by applying a depreciation rate to an initial monetary value, and by deducting any excess amount that may apply, and then the further step of generating a voucher for the settlement amount of the item.

10 Desirably the method includes the further step e.) of printing a set of documents finalising the claim, such documents importing relevant information and settlement values, and being dependant on the particular method of settlement applied.

15 Preferably step a.) may be conducted via a website over the internet, the website having a page configured and arranged to allow a claimant to enter the required information in various fields to complete an insurance claim and such data is exported to the insurance organisation's computer database managing the claim.

20 Advantageously the method includes the further step f.) wherein the datafile associated with a settled claim is moved to an archiving database wherein further changes to the datafile are not permitted.

According to a second broad aspect of the invention there is provided a computer program for managing an insurance claim, the program including the processing steps of:

25 i.) getting data relating to the claim, including details on all items of property being claimed;

ii.) obtaining data to establish a replacement value for each of the items of property relating to the claim, the replacement value being obtained from a price enquiry database kept current with the replacement values of items of property;

30 iii.) adjusting the claim in accordance with a selected settlement method; and

iv.) determining a value in settlement of the claim.

Preferably in step iv) the claim adjustment is executed by a mathematical algorithm that includes a pre-determined depreciation rate or percentage for each item in the claim.

When in step iii) the settlement method is by cash settlement, desirably in step iv) the settlement value is determined by applying an algorithm in the form of:

5

$$\text{settlement value} = \text{replacement value} - \frac{(\text{age of item} \times \text{replacement})}{\text{life expectancy of item value}}$$

When in step iii) the settlement method is by market value settlement, desirably in step iv) the settlement value or amount of each item is determined by seeking and obtaining an open market valuation of the item by a valuer or third party.

10

When in step iii) the settlement method is by supply settlement, preferably in step iv). the settlement value is determined by selecting a retailer or supplier of the claimed item of property and placing an order for the supply of the item.

15 When in step iii) the settlement method is by voucher settlement, desirably in step iv). the settlement value is determined by applying a depreciation rate to an initial monetary value, and by deducting any excess amount that may apply, and then the further step of generating a voucher for the settlement amount of the item.

20 Preferably the computer program further includes step v.) of printing a set of documents finalising the claim, such documents importing relevant information and settlement values from steps i) and iii), and such documents being determined by the particular settlement method applied.

According to a third broad aspect of the invention there is provided a system of managing an insurance claim, the system including a database for storing data relating to the current replacement value of items of property, the database being configured and arranged to be updatable with current replacement and market values of the items of property, the database having means to accept a request for data on the current value of an item of property, the request being from a computer programmed with the computer software in accordance with any of claims 9 to 15, and to allow data to be sent to

25 the initiating source of the request either locally or remotely.

30 Preferably the database stores tables of replacement and market values of the items of property.

Desirably the database updates its data on each item periodically by automatically and electronically sending data requests to retailers or suppliers of items to obtain updated schedules of replacement values for items.

35



Desirably the system further comprises a client property database, the database storing lists of potential claimants property covered by an insurance policy, the database being updatable by any potential claimant.

- 5 Preferably the database can be consulted via a website, and wherein a security access code must first be used before access is permitted.

Advantageously the database is connected to a computer programmed with a suitable computer program adapted to manage claim datafiles and to acquire readily available information relating to an

- 10 insurance claim, the computer being capable of adjusting the claim using a mathematical calculation associated with the computer program to determine a settlement replacement value.

#### BRIEF DESCRIPTION OF THE DRAWINGS

- 15 A preferred embodiment of the invention will now be illustrated, by way of example only, with reference to the accompanying drawings in which:

Figure 1: Shows a flow chart of steps of processing a claim according to a broad aspect of the invention;

Figure 2: Shows a flow chart of steps of processing a claim according to an alternative aspect of the invention; and

Figure 3: Shows a flow chart of processing steps in the computer program according to an aspect of the invention.

#### DETAILED DESCRIPTION OF THE DRAWINGS

Referring to figure 1, flow chart of steps of processing a claim, generally referred to as 1, according to a broad aspect of the invention, is illustrated.

The purpose of the invention is to increase the efficiency of settling claims, particularly insurance claims, in a timely manner. For clarity, the embodiments of the invention described are with reference to insurance claims although it will be appreciated that the methods and systems employed in the invention are, *inter alia*, for determining the current value of an item of property.

The claims that are envisaged to be processable in accordance with any one or more aspects of the invention may include damage or loss to vehicle and boats and other such personal property, medical, travel, accident, income, life or house contents insurance or any other item of property or other thing  
5 or person that can be covered by an insurance policy and later be relied on to claim under such policy.

Although the use of computer software programs for managing insurance claims is not new, the various configurations and processing steps of the present invention, and how it is used in the  
10 insurance settlement process, and the extent of tracking and management of claims, and the methods of claim management, are considered to be some of the new aspects.

The method steps 1 involve at least one claims operator associated with an insurance company or organisation who can receive the details of the claim 2 and enter details into a database 4 associated  
15 with a CAPS computer program 3, referred to broadly as a claims adjuster program & systems ("CAPS"). Further details of desirable functioning steps of the CAPS program 3 are described below with reference to figures 2 and 3 and need not be repeated.

When the claimant provides details of a claim, the operator can immediately and conveniently load  
20 the data into a new claims datafile associated with the CAPS program 3 and a new datafile reference number, or claim reference, can be allocated. Alternatively a claim reference number may simply be selected and entered as a field in the CAPS program 3 loading step.

The information obtained from the claimant and loadable in the new datafile can include information  
25 such as, for example, the claimant's name(s), claimants physical address and/or postal address, claimant contact numbers, insurance claim reference number, type of claim (i.e. loss through theft or burglary, damage by accident), an event date being the date of the loss or damage to the item of property, insurance organisation and branch in the arrangement whereby outside parties may be reviewing and processing the claim datafile, policy type, policy excess if applicable, claim operator's  
30 name and title, and any other relevant information that may be useful or required with processing a claim.

When the data has been loaded into appropriate fields, the data can be saved by the operator as a current claims datafile. The datafile may be stored in a current claims database 4. It will be  
35 appreciated that further information on the items of property being claimed can be included in the data

entered previously or as a separate step in the claim settling process. Other data that may be relevant to a claim could include a claims history for the claimant concerned, details of previous losses and lists of property assets held by a claimant and covered by various insurance policies.

5 It will be appreciated that an operator can load information or data relating to a claim in a variety of ways. One common way is by inserting the appropriate data by keyboard into fields on a loading screen displayed on a computer monitor. The display screen can be windows-based to conveniently display the data entered before the data is saved.

10 The operator can load data on the item(s) of property being claimed. The item(s) description, date of purchase and purchase price, in an appropriate currency, is entered. A group code for a category of property may be selected. This is useful when large numbers of items are being claimed and sub totals of the groupings can be provided to claimants on settlement rather than a large itemisation of property. This information or data is also saved to a database.

15

The replacement value of any item can be obtained by look up tables or other consultative sources such as a third party 5 (for example an assessor or valuer) or directly to a supplier of such items of property. Desirably the replacement value of any item is obtainable by sending a computer request command to a database, in the form of a replacement quote database or a Price Enquiry Database 6

20 ("PED"). The PED 6 is consulted with a request via network 7 and can respond by providing a replacement value of the item requested. The PED 6 is explained in some detail below and does not need to be repeated.

It will be appreciated various coding can be used to allow the CAPS program 3 and PED 6 programs to  
25 communicate, and that standard suitable communication systems can be employed to allow the programs to exchange data. Common communications systems include local area networks, wide area networks, direct telephone lines via modems, and/or a computer server hosting various databases and/or slave servers and the like, and communicating with client terminals by cable or abovementioned networks.

30

Information relating to some items may need to be obtained by a third party 5 such as an investigator, assessor or claims consultant. The claim details are provide to the consultant 5 who determines the item value and provides that to the insurance organisation or claims operator or PED 6, as directed. The third party 5 may have a CAPS program 3 or part thereof loaded in a terminal and may  
35 communicate with the main CAPS program 3 at the insurance organisation and the PED 6. This

method minimises any direct contact by telephone or email or otherwise and automatic pre-formatted requests can be generated and sent between parties without delay or distraction.

Once all the information is obtained, the next stage of the process can involve a claim adjustment step.

- 5 This step in the claims settlement process is with adjusting the initial assessed replacement value of the item depending on factors, for example, as the type of policy covering the item being claimed, the age of the item and any applicable depreciation rates, and any other policy factors that determine the output value of this step in the process. The output value can be seen as the settlement value or amount of the item being claimed. The CAPS program 3 may comprise any one or more of the
- 10 features as described with the CAPS program 53 with reference to figure 3 below.

It is envisaged that any claims operator at an insurance company or organisation may handle the claim processing steps so long as they have access to a CAPS program 3 and access to the database 4 or PED 6 hosting the relevant claims datafile.

15

The operator can makes an appropriate adjustment to a claim or item in a claim to determine the settlement value. The settlement value may be determined by a mathematical calculation depending on the settlement type. This mathematical calculation may desirably include a depreciation ratio. The CAPS program 3 may allow a computer operator to adjust the depreciation ratio as required. This is

20 particularly important for items that do not depreciate linearly over the life expectancy of the item. This adjusting step may be associated with the method of settlement employed such as cash settlement, supply settlement, voucher settlement and market value settlement. Each item in a claim can be settled individually. It is envisaged that in some instances items can be settled in groups or categories.

25

It may well be that the adjustment made to the initial value of an item does not include a depreciation ratio if the item in a claim is settled by supply settlement or voucher settlement. This may be because the item is being replaced rather than a monetary figure paid. The CAPS program 3 is preferably customised to comply with the insurance organisation's settlement policies, and any other factors.

30

With a cash settlement, the cash value is derived by taking into consideration factors such as the item's current replacement value, the depreciate rate applying to that particular item, whether linear or otherwise, the age of the item at the date of loss and the life expectancy of the item. These factors are entered into fields in the window of the CAPS program 3, and a step for deriving the settlement

35 amount is obtained. The settlement amount may then deduct any excess applying to the final amount

reimbursed. Desirably the program 3 includes a print option that when activated prints cash settlement pre-formatted documents.

With a supply settlement, a user can settle a claim by selecting a retailer or supplier of an item being  
5 claimed to supply a replacement item to the claimant and/or services. The services may include an  
authorisation of a reinstatement company or repairer proceeding with work in order to properly  
indemnify the claimant. To select a supplier the CAPS program 3 may include a drop down box  
having a table to select a preferred supplier. It will be appreciated that different insurance  
organisations may have a preference for some suppliers over others and such tables can be  
10 customised. The CAPS program 3 may allow a user to update a list of suppliers by adding or deleting  
suppliers.

The CAPS program 3 may include a quote option for items being claimed. With this option an  
operator can select a supplier and the appropriate information on the claim can be exported to a word  
15 processing program or sub program of the CAPS program 3 and printed in a pre-formatted letter.

With the voucher settlement, items in a claim where the settlement amount may have been  
determined at the adjustment stage to derive a settlement amount or value on the item can then settle  
the claim by generating and sending a voucher to the claimant. The claimant can then take the  
20 voucher to suppliers that will accept the vouchers for items of property.

The voucher is derived by a user selecting the voucher option in the appropriate display screen. The  
user can then select a supplier and the appropriate information on the claim can be exported to a word  
processing program or sub program of the CAPS program 3 and printed in a pre-formatted letter. The  
25 letter will record all the appropriate details of the claim including the item(s) settlement amount(s) and  
the supplier(s) the claimant can approach with the voucher.

With market value settlement, the market value is what one would expect to pay for a similar item on  
the open market based on factors such as, including age and condition. For example, the  
30 replacement value of a 5 year old bicycle is \$500, and the open market value is \$100. The difference  
reflects the age and condition of the bicycle, and can also include the market demand for a bicycle of  
that design and use.

The market value for the item can desirably be obtained by a registered valuer or third party that can  
35 provide the indemnity value of an item. This may be done with items such as jewellery.

Once the final figure is derived a print function can be used to provide the claimant with details of the item(s) being claimed and the settlement amount(s).

- 5 Advantageously the CAPS program 3 can include an interactive report function replied on to track progress with the claim and to record details of telephone calls and other correspondence and instructions relating to a claim file. It will be appreciated that in any organisation many operators may work in a claim at various stages, and it may well be the claim may be audited at any one stage of the claim settlement process or a supervisor desiring to check that the file is in order before it is further  
10 processed, or archived after settlement of the claim.

- The interactive report function can operate with a separate display screen or window having fields to record details. The fields may include the claim reference, insurance organisation, operator's identifier, claimant's name, and type of claim, with a large field for inserting text. Once the details are  
15 inserted the report is saved, and can later be retrieved from the datafile by executing a function to open the display window showing inputted details.

- The status of a file can be changed when the claim is settled and fully processed, for example, from current to archived, depending on an insurance organisation's archive policy. It may be desirable to  
20 move datafiles on closed claims from an active and current database to an archived database 8 for convenience purposes.

Referring to figure 2, flow chart of a method of processing an insurance claim, generally referred to as  
50, according to a further aspect of the invention, is illustrated.

- 25 This method 50 involves at least one claims operator associated with an insurance company or organisation 52 who can receive details of the lodged claim 51 and create or load a new claim datafile by using a CAPS program 53. A new datafile reference number, or claim reference, can be allocated. Alternatively a claim reference number may simply be selected and entered as a field in the CAPS  
30 program 53 loading step.

- The information obtained from the claimant and loadable in the new datafile can include data such as, for example, the claimant's name(s), claimants physical address and/or postal address, claimant contact numbers, insurance claim reference number, type of claim (i.e. loss through theft or burglary, or  
35 damage by accident), an event date being the date of the loss or damage to the item of property,

insurance organisation and branch in the arrangement whereby outside parties may be reviewing and processing the claim datafile, policy type, policy excess if applicable, claim processing operator's name and title, and any other relevant information that may be useful or required with processing a claim.

5

When the data has been loaded into appropriate fields, the data is saved by the operator to a claims database 54. It will be appreciated that further information on the items of property being claimed can be included in the data entered previously or as a separate step in the claim settling process. The claims data is desirably associated with a search engine that can allow users of the CAPS program 53

10 to search for a claim datafile by any field, or more desirably by the name of a claimant, claim number, and/or by policy number.

It will be appreciated that an operator can load information or data relating to a claim in a variety of ways. One common way is by inserting the appropriate data by keyboard into fields on a loading  
15 screen displayed on a computer monitor. The display screen can be windows-based to conveniently display the data entered before the data is saved.

The operator loads data on the item(s) of property being claimed. The item(s) description, date of purchase and purchase price, in an appropriate currency, is entered. A group code for a category of  
20 property may be selected. This is useful when large numbers of items are being claimed and sub totals of the groupings can be provided to claimants on settlement rather than a large itemisation of property. This information or data is also saved to a database 54.

The replacement value of any item can be obtained by look up tables or other consultative sources  
25 such as a third party or directly to a supplier of such items of property. Desirably the replacement value of any item is obtainable by sending a computer request command to a second database in the form of a replacement quote or more accurately termed a price enquiry database 55 ("PED"). The PED 55 is consulted with a request via a communication means and will respond by providing a value of the item requested. The PED 55 has been explained in some detail below and does not need to be  
30 repeated.

It will be appreciated various coding can be used to allow the CAPS 53 and PED 55 programs to communicate, and that standard suitable communication systems can be employed to allow the programs to exchange data. Common communications systems include local area networks, wide  
35 area networks, internet and cable links, radio frequency, telephone lines via modems, and/or a

computer server hosting various databases and/or slave servers and the like, and communicating with client terminals by cable or abovementioned networks.

The value or information relating to some items can be obtained by a consultant 58 or third party such as an investigator, assessor or claims consultant. The claim details are provide to the consultant 58 who determines the item value and provides that to the insurance organisation or a separate claims management organisation ("CMO") 56, as required. Such third parties can be provided with a CAPS program 53 or associated program to enable such parties to communicate directly by data exchange rather than email attachments or manually to an insurance organisation 52 or CMO 56 or other party responsible for managing the relevant insurance claim.

The next stage is the settlement step. An item or items in a claim can be settled by a variety of methods. These methods may include cash settlement, supply settlement, voucher settlement and market value settlement. Each item in a claim can be settled individually. It is envisaged that in some instances items can be settled in groups or categories.

It may well be that the adjustment made to the initial value of an item does not include a depreciation ratio if the item in a claim is settled by supply settlement or voucher settlement. This may be because the item is being replaced rather than a monetary figure paid. The CAPS program 53 can be customised to comply with a particular insurance organisation's settlement policies, and the particular obligations an insurance organisation is contracted under a policy to meet.

With a cash settlement, the cash value is calculated for each item and the settlement amount is minus any excess that may apply to the final amount reimbursed. Further details are as applied to cash settlement as described with reference to figure 1. A print function 59 may be activated to print a settlement cheque. It is envisaged that if the claimant's bank account details are available a direct debit facility may be set up for payment.

With a supply settlement, a user can settle a claim by selecting a retailer or supplier of an item being claimed to supply a replacement item to the claimant. To select a supplier the CAPS program 53 may include a drop down box having a table to select a preferred supplier. It will be appreciated that different insurance organisations may have a preference for some suppliers over others and such tables can be customised. The CAPS program 53 may allow a user to update a list of suppliers by adding or deleting suppliers.



The CAPS program 53 may include a quote option for items being claimed. With this option an operator can select a supplier and the appropriate information on the claim can be exported to a word processing program or sub program of the CAPS program 53 and printed in a pre-formatted letter.

- 5 With the voucher settlement, items in a claim where the settlement amount may have been determined at the adjustment stage to derive a settlement amount or value on the item can then settle the claim by generating and sending a voucher to the claimant. The voucher may be redeemable at any suitable supplier or retailer selected by the insurance organisation or otherwise. The claimant can then take the voucher to suppliers that will accept the vouchers for items of property.

10

The voucher is derived by a user selecting the voucher option in the appropriate display screen. The user can then select a supplier and the appropriate information on the claim can be exported to a word processing program or sub program of the CAPS program 53 and printed in a pre-formatted letter. The letter will record all the appropriate details of the claim including the item(s) settlement amount(s) and

- 15 the supplier(s) the claimant can approach with the voucher.

With market value settlement, the market value is what one would expect to pay for a similar item on the open market based on factors such as, including age, condition and market demand of the item. That final figure may become the settlement amount or may be passed through another variable as required. Further details are as applied to market value settlement as described with reference to figure 1.

20

The next stage of the process can involve a claim adjustment step. This step in the claims settlement process is with adjusting the initial assessed replacement value of the item depending on factors, for example, as the type of policy covering the item being claimed, the age of the item and any applicable depreciation rates, and any other policy factors that determine the output value of this step in the process. The output value can be seen as the settlement value or amount of the item being claimed.

25

- 30 An operator at an insurance company or organisation 52 may handle this processing step or may desirably refer this processing step onto a CMO 56. If the CMO 56, a claims datafile can be exported via link 57 to the CMO 56.

The CMO 56 then makes an appropriate adjustment to a claim or item in a claim to determine the settlement value. The settlement value may be determined by a mathematical calculation. This mathematical calculation may desirably include a depreciation ratio that is supplied by the particular

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insurance organisation 52 responsible for settling a client's policy claim. The expected life expectancy of an item is a factor that may be included in the claim adjustment. The CAPS program 53 may allow a computer operator to adjust the depreciation ratio as required.

- 5 Once the final figure is derived a print function can be used to provide the claimant with details of the item(s) being claimed and the settlement amount(s).

Advantageously the CAPS program 53 can include an interactive report function relied on to track progress with the claim and to record details of telephone calls and other correspondence and

- 10 instructions relating to a claim file. It will be appreciated that in any organisation many operators may work in a claim at various stages, and it may well be the claim may be audited at any one stage of the claim settlement process or simply a supervisor desiring to check that the file is in order before it is further processed or is archived.

- 15 The interactive report function can operate with a separate display screen or window having fields to record details. The fields may include the claim reference, insurance organisation, operator's identifier, claimant's name, and type of claim, with a large field for inserting text. Once the details are inserted the report is saved, and can later be retrieved from the datafile by executing a function to open the display window showing inputted details.

- 20 An advantage with the interactive report function is that an operator or user of the CAPS program, being able to obtain the claim datafile, can see everything on datafile at any location without requiring a paper file. This is a very desirable feature as it can save time and effort by not needing to request a file, and having to delay or wait to receive it, before further work can be progressed on the file. It also

- 25 is convenient if a claimant contacts an insurance organisation wishing to discuss a claim or to query a claim, and a claims handler or other staff member may be able to assist with details on the file as it is readily retrievable or available.

- 30 The CAPS program 53 may incorporate a reinstatement function that allows for a re evaluation of reinstatement costs, after loss valuations for reinstatement claims either at full replacement or indemnity costs.

The datafile on a claim can be easily transferred or exported/imported to the CAPS program 53 as required. Further, the status of a file can be changed, for example, from open to closed, depending

on an insurance organisation's archive policy. It may be desirable to move datafiles on closed claims from an active and current database to an archived database for convenience purposes.

Referring to figure 3, a flow chart of broad processing steps in the CAPS computer program 53, is  
5 illustrated.

The CAPS program 53 functions to manage the various processing stages of handling or managing a claim to increase the likelihood of settlement of the claim reasonable quickly and efficiently, leaving an audit trail of transactions and correspondence at each stage of the workflow process.

10

A client may lodge an insurance claim with an insurance organisation 52 by conventional means such as by telephone helpdesk wherein the program 53 is run and a claims handler will create a new claim datafile 70. Conveniently a display screen on a computer monitor is opened and the claims handler will enter all the required information for lodging a claim. That information can be as detailed with  
15 reference to figure 2 and the information is generally determined by an insurance organisation's operational requirements for managing a claim, such as, for example, the claimant's name(s), claimants physical address and/or postal address, claimant contact numbers, insurance claim reference number, type of claim (i.e. loss through theft or burglary, damage by accident), an event date being the date of the loss or damage to the item of property, insurance organisation and branch in the arrangement  
20 whereby outside parties may be reviewing and processing the claim datafile, policy type, policy excess if applicable, claim processing operator's name and title, and any other relevant information that may be useful or required with processing a claim.

Alternatively, and more desirably, a client may lodge a claim on-line via a website page set up to  
25 accept relevant data relating to a claim. The website program can be configured to create a new claims datafile 70 or automatically export data inputted by a claimant to the CAPS program 53 at the insurance organisation 52 or where required.

The program 53 may function such that a datafile 70 can not be saved to a current claims database  
30 until all the necessary data or information is entered in the various fields in the claim loading display screen. The program 53 can include prompts and help files to assist a claims handler to obtain and enter all the required data or information.

Once the information is obtained, the claims handler can save the datafile to a current claims database,  
35 retrievable by the program as required.

The claim datafile is also generally associated with a current policy and policy details, relating to the items of property being claimed, can be imported or copied from a policy database 71 into the claims datafile, or a database reference or link can be saved as part of the database file. It will be appreciated  
5 that the settlement value is influenced by the policy covering the item being claimed, such as a market value or replacement cover.

If gaps in the information required for settling a claim is evident, such as the current replacement value of an item, then the program step 72 of obtaining such information is actioned. The action can be by  
10 way of querying a database 73 to obtain a value or quote of an item being claimed. This can be by simply clicking a button to send a request to the database 73. The database 73, upon receiving the request, can process the request and provide a value to the program 53 datafile of the item of property in question. When that item value is received, it can be loaded into the appropriate field in the claim datafile.

15

The program 53 allows for manual inputting of the value sought. This may be for a claim involving vehicle damage whereby a claims assessor must inspect the damage caused and to obtain a value of the damage to the vehicle and pass that onto the claims handler. It is envisaged that any outside third party may be provided with part or all of the CAPS program 53 to enable those parties to manage part  
20 of the claim electronically rather than via telephone calls and further manual input by a claims handler at the insurance organisation. That is, the claims handler can send a data request for information or values from, say, an assessor, sent by email or otherwise, and the assessor will receive and action the request, and provide the information to the claims handler for inclusion in the relevant claim datafile.

25 Once the required information on a claim is received, the next processing step is with adjusting the item value. A method of settling the claim or items in a claim is selected. It could be by cash settlement 74, supply settlement 75, voucher settlement 76 and/or market value settlement 77 or a combination of these methods or otherwise (such as an agreed value between claimant and insurance organisation). Each item in a claim can be settled individually with whatever method is selected. It is  
30 envisaged that in some instances groups or categories of items can be settled.

With a cash settlement 74, the cash value is derived for an item. The cash value is derived by taking into consideration factors such as the item's current replacement value, the depreciate rate applying to that particular item, whether linear or otherwise, the age of the item at the date of loss and the life  
35 expectancy of the item. The life expectancy figure can be obtained from "look up" tables, and such

tables may be incorporated in the CAPS program. These tables can desirably be upgraded and customised for different organisations using the CAPS program.

The computer program algorithm can also be customised for a particular insurance organisation and can, for example, include an assessment of the age of the item at the loss date, and a pre determined percentage of loss ratio per year for an item to derive at a settlement amount for the item, minus any excess that may apply to the final amount reimbursable. The CAPS program 53 allows variations in the calculation to be added such as varying depreciation percentages and how those percentages may change for each year of loss for any particular item. Maximum allowable depreciation rates used can be set using the CAPS program 53.

A mathematical algorithm used to drive the settlement value may be expressed as:

$$\text{Cash settlement value} = \text{replacement value} - \left( \frac{\text{age of item}}{\text{life expectancy of item}} \times \text{replacement value} \right)$$

An example is applied with using the above algorithm. If a three year old leather jacket is claimed, and it has a life expectancy of eight years, and is given a replacement value of \$450, the determined cash settlement value is:

$$\begin{aligned} \text{Cash settlement value} &= 450 - \left( \frac{3}{8} \times 450 \right) \\ &= \$281.25 \end{aligned}$$

Once the settlement figure is determined, the next processing step can desirably include a printing processing step 78. This step is to assist with the final stage of the claims process and is convenient as all the relevant data relating to a claim can be easily exported to pre-formatted letters and reports and memorandums or otherwise rather than a claims handler re-entering such data in a word processing program.

With supply settlement 75, a user can activate a pop up window of a table and select, or enter details of, a retailer or supplier of an item being claimed to supply a replacement item to the claimant and/or services. The services may include an authorisation of a reinstatement company or repairer proceeding with work in order to properly indemnify the claimant. It will be appreciated that different insurance organisations, or even different branches of an organisation, may have preferences for some suppliers over others and such tables can be customised. The CAPS program 53 may allow a claims

handler or any authorised person, to update a list of suppliers by, for example, adding or deleting suppliers.

The CAPS program 53 may include a quote option for items being claimed. With this option an operator can select a supplier and the appropriate information on the claim can be exported to a word processing program or sub program of the CAPS program 53 and printed in a pre-formatted letter in accordance with the supply settlement printing step 79. Suppliers include authorised repairers and reinstatement companies.

- 10 Alternatively the claims operator may choose to activate a sub-routine in the program 53 to directly order a replacement item to be delivered to the claimant from the supplier. Advantageously this order is placed digitally and may be communicated to the supplier having a CAPS program 53 or a part thereof of the program tailored to meet this direct ordering processing step. An advantage with this method is that it avoids printing an order form and sending by postal mail.

15

With the voucher settlement 76, items in a claim where the settlement amount may be determined by the purchase price of the item in the case where the item is covered by a replacement value in the relevant policy. The program 53 can then be used to settle the claim by generating and printing a voucher for the claimant in accordance with a printing step 80. The claimant can then take the voucher to specified suppliers that will accept the vouchers for items of property.

20

The voucher can be generated by a program user selecting the voucher option in the appropriate display screen. The user can then select a supplier and the appropriate information on the claim can be exported to a word processing program or sub program of the CAPS program 53 and printed in a pre-formatted letter. The letter will record all the appropriate details of the claim including the item(s) settlement amount(s) and the supplier(s) the claimant can approach with the voucher.

25

With market value settlement 77, the market value is what one would expect to pay for a similar item on the open market based on factors such as, including age, condition and market demand of the item. Such a value may be obtained by consulting the PED. That final figure may become the settlement amount or may be passed through another variable as required. Further details are as applied to market value settlement as described with reference to figure 1. Other mathematical calculations may be applied and values and figures insertable in fields on the display screen can be adjusted as required. That final figure may become the settlement amount or can be manually changed, if required.

35

Once the final settlement amount of the item is derived a printing step 81 function can be used to provide the claimant with details of the item(s) being claimed and the settlement amount(s) in a pre-formatted letter or table.

- 5 A print function 82 may be activated after any one of steps 78 to 81 are completed to print a settlement cheque. It is envisaged that if the claimant's bank account details are available a direct debit facility may be set up for payment.

- When the claim has been completely actioned and any auditing of the datafile has been made, then
- 10 the insurance organisation may direct that the claim be closed. At this stage the archive step can be actioned by the program by moving the current claims datafile from the database 73 to an archive database 83.

- The archive processing step involves freezing the datafile and therefore no changes to any data can be
- 15 subsequently made.

Additionally, at any stage of the claim management process, an operator can activate a pop up display window and enter a report 84. This is to allow tracking of activities on a claim datafile and recording of correspondences.

20

The CAPS program 53 can function to allow for a multitude of variables reflecting the myriad of claims management and settlement options available. That is why, for example, the settlement amounts or figures can be manually over ridden by an authorised claims handler who must exercise an appropriate level of judgement when settling claims.

25

It is envisaged that the program 53 can be easily adapted to include search and report functions, with printing options, involving a current working database and/or the closed archive database 84. The statistical analysis may desirably include reports such as the number of claims from a geographical location or certain demographic factor, claimant, claim types and yearly claim figures. Such reports

30 are only limited by the fields in the program and the amount of information obtained from claimants or otherwise, and entered into datafiles.

- An advantage with the CAPS program 53 is that it is configured and functions to allow a particular insurance organisation to easily and conveniently export and import claim datafiles and interact with
- 35 third parties outside the organisation or staff located at another branch of the organisation. The

reliance on paper files can be avoided as all the file documentation or information can be readily available from a datafile viewable at any terminal or computer programmed with the CAPS program 53. Datafiles can be conveniently compressed or zipped and exported as an email attachment via the internet or by any other known communication means.

5

It is envisaged that when international currencies are involved with determining insurance claims, for example with a claim under travel insurance, the CAPS program 53 may include a feature having direct access to currency conversions, whether current or historic currency data, and may also include replacement quote values for foreign countries.

10

The CAPS program 53 can include a user's operating manual in the form of help files that can be dropped from the tool bar of a display window.

Referring to figures 1 to 3, it is seen that in various embodiments of the invention a replacement quote database, or more accurately termed, a Price Enquiry Database ("PED") has been consulted in the claim settlement process.

15

The PED includes current replacement values, market values and historic values of items. The PED has the advantage of being programmed and configured to provide current values for items of property being claimed. As PED can desirably be used in association with the CAPS program 53, and as PED can be consulted digitally, it is seen that a claims handler using the CAPS program 53 can settle a claim reasonably quickly by obtaining a reply to a request within a short time period.

20

The PED can be kept current with item values by an associated program set up to get information from various sources as required. The PED can be configured with a linked network of third parties that are consulted in the case of an unusual item not being present in the PED database. In this situation an assessor or valuer at a remote location can be provided with a program (not shown) that interacts and communicates with the PED and/or PED software program.

25

The assessor or valuer can obtain the replacement value of the item requested and sends it, desirably electronically, to the PED that immediately updates its database and actions a reply to the initial request for the replacement value. If the replacement value of that item is again requested at a later date by any insurance organisation or operator using a CAPS program 53, the PED can send the value immediately after locating it in its database.

30

35



The information that may be detailed in the PED include a category of item, a description of the item, the replacement value, a supplier of the item, and the date the database was updated with the replacement value of the item.

- 5 It will be appreciated that the computer program associated with the PED may include a searching function for items, a log of activities with time stamps, and any other known associated feature with a software program that can enhance its capabilities.

- 10 It is envisaged that the CAPS program 53 can be configured to integrate the PED to form a complete package. This package may be operational at any one location, particularly in the case of smaller applications of the program.

- 15 It is further envisaged that the invention may further include a client property database (not shown). The client property database may store tables having lists of potential claimant's property covered by an insurance policy. The client property database may be updateable by any potential claimant from time to time.

- 20 The client property database may updateable via a website, and wherein a security personal identification code must first be accepted before access is permitted.

- If a person later lodges a claim, they can select the items of property being claimed and lodge that information along with other required information with the claim.

- 25 Wherein the foregoing reference has been made to integers or components having known equivalents, then such equivalents are herein incorporated as if individually set forth. Accordingly, it will be appreciated that changes may be made to the above described embodiments of the invention without departing from the principles taught herein.

- 30 Additional advantages of the present invention will become apparent for those skilled in the art after considering the principles in particular form as discussed and illustrated. Thus, it will be understood that the invention is not limited to the particular embodiments described or illustrated, but is intended to cover all alterations or modifications which are within the scope of the appended claims.

**EDITORIAL NOTE - No. 89346/01**

Claims 1 to 6 were not filed with this application

information and settlement values, and being dependant on the particular method of settlement applied.

- 5 7. A method according to any one of the preceding claims wherein step a. may be conducted via a website over the internet, the website having a page configured and arranged to allow a claimant to enter the required information in various fields to complete an insurance claim and such data is exported to the insurance organisation's computer database managing the claim.
- 10 8. A method according to any one of the preceding claims further including an archiving step f. wherein the datafile associated with a settled claim is moved to an archiving database wherein further changes to the datafile are not permitted.
- 15 9. A computer program for managing an insurance claim, the program including the processing steps of:

  - (i) getting data relating to the claim, including details on all items of property being claimed;
  - (ii) obtaining data to establish a replacement value for each of the items of property relating to the claim, the replacement value being obtained from a price enquiry database kept current with the replacement values of items of property;
  - (iii) adjusting the claim in accordance with a selected settlement method; and
  - (iv) determining a value in settlement of the claim.
- 20 10. A computer program in accordance with claim 9 wherein in step (iv) the claim adjustment is executed by a mathematical algorithm that includes a pre-determined depreciation rate or percentage for each item in the claim.
- 30 11. A computer program in accordance with claim 9 wherein in step (iii) the settlement method is by cash settlement, and wherein in step (iv) the settlement value is determined by applying an algorithm in the form of:

$$\text{settlement value} = \text{replacement value} - \frac{(\text{age of item} \times \text{replacement value})}{\text{life expectancy of item}}$$
- 35 12. A computer program in accordance with claim 9 wherein in step (iii) the settlement method is by market value settlement, and wherein in step (iv) the settlement value or amount of each item is determined by seeking and obtaining an open market valuation of the item by a valuer or third party.

13. A computer program in accordance with claim 9 wherein in step (iii) the settlement method is by supply settlement, and wherein in step (iv) the settlement value is determined by selecting a retailer or supplier of the claimed item of property and placing an order for the supply of the item.
- 5
14. A computer program in accordance with claim 9 wherein in step (iii) the settlement method is by voucher settlement, and wherein in step (iv) the settlement value is determined by applying a depreciation rate to an initial monetary value, and by deducting any excess amount that may apply, and then the further step of generating a voucher for the settlement amount of the item.
- 10
15. A computer program in accordance with claim 9 further including step (v) of printing a set of documents finalising the claim, such documents importing relevant information and settlement values from steps (i) and (iii), and such documents being determined by the particular settlement method applied.
- 15
16. A system of managing an insurance claim, the system including a database for storing data relating to the current replacement and market values of items of property, the database being configured and arranged to be updatable with current replacement and market values of the items of property, the database having means to accept a request for data on the current value of an item of property, the request being from a computer programmed with the computer software in accordance with any of claims 9 to 15, and to allow data to be sent to the initiating source of the request either locally or remotely.
- 20
17. A system according to claim 16 wherein the database stores tables of replacement and market values of the items of property.
- 25
18. A system according to claim 16 wherein the database updates its data on each item periodically by automatically and electronically sending data requests to retailers or suppliers of items to obtain updated schedules of replacement values for items.
- 30
19. A system according to claim 16 further comprising a client property database, the database storing lists of potential claimants property covered by an insurance policy, the database being updatable by any potential claimant.
- 35
20. A system according to claim 16 wherein the database can be consulted via a website, and wherein a security access code must first be used before access is permitted.

21. A system according to claim 16 wherein the database is connected to a computer programmed with a suitable computer program adapted to manage claim datafiles and to acquire readily available information relating to an insurance claim, the computer being capable of adjusting the claim using a mathematical calculation associated with the computer program to determine a settlement replacement value.
22. A method according to claim 1 substantially as herein described.
23. A computer program for managing an insurance claim substantially as herein described with reference to the drawings.
24. A system of managing an insurance claim substantially as herein described with reference to any one of the accompanying drawings.

15

Dated: this 7<sup>th</sup> day of November 2001.

MICHAEL WILLIAM KEANEY

20 By his Attorney



25

E. R. SCHUCH

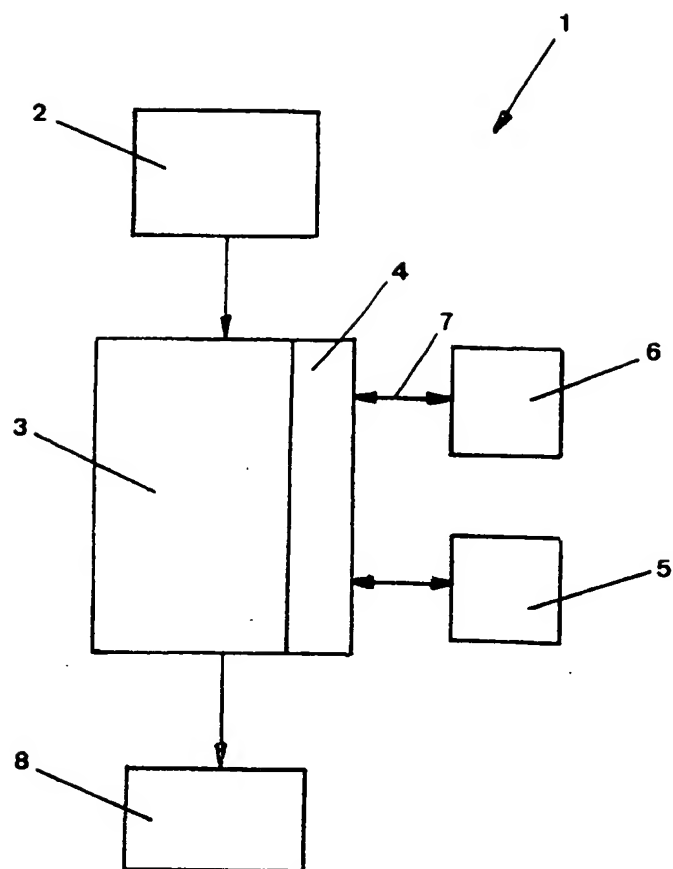


Figure 1

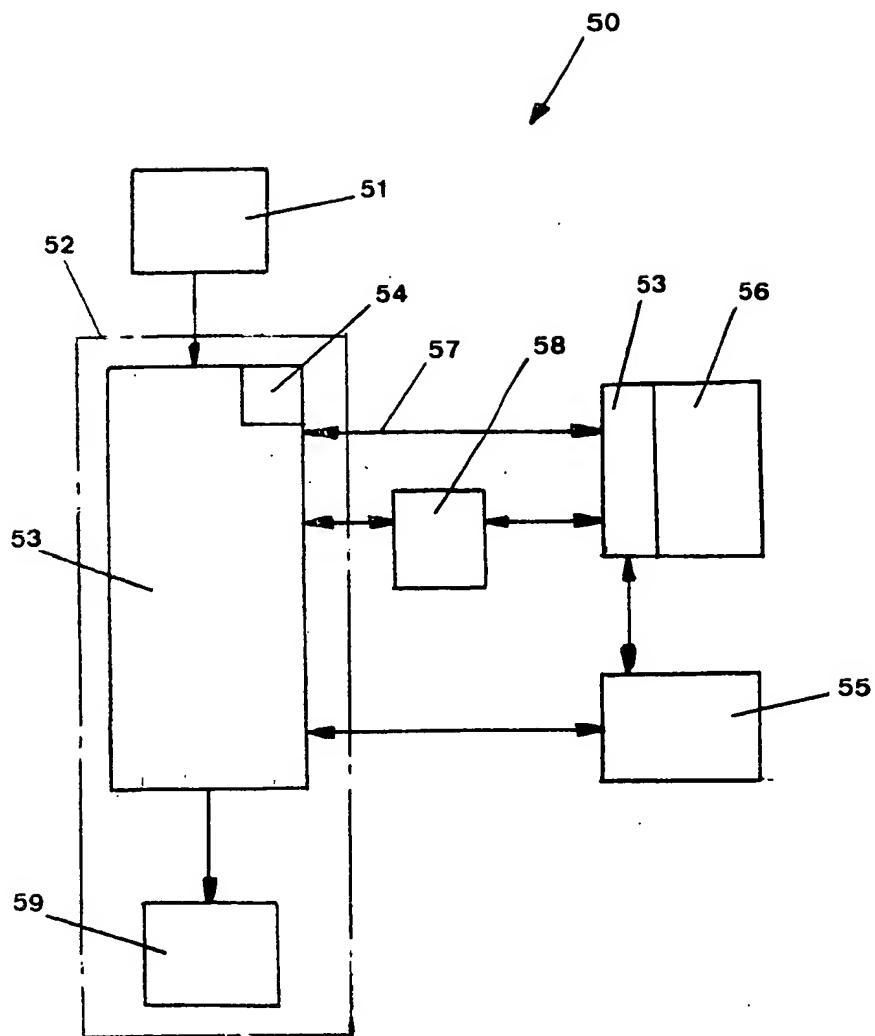


Figure 2





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